

# PATENT SPECIFICATION

946,816



DRAWINGS ATTACHED

946,816

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## COMPLETE SPECIFICATION

### Paper Web Folding Formers

We, MASCHINENFABRIK AUGSBURG-NURNBERG AG., a German Company of Stadtbachstrasse 7, (13b) Augsburg 2, Germany, do hereby declare the invention, for which we

5 pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 The present invention relates to folding formers for the longitudinal folding of paper webs and in particular, though not exclusively, to a folding former for such folding of paper webs being treated in rotary printing machines.

15 A disadvantage has been found to exist with known folding formers, occurring when a number of superposed webs are treated, in that creases and ink smears are produced on the innermost web of paper owing to friction 20 between the web and the former surface or edges.

According to the present invention there is provided a folding former, for longitudinally 25 folding webs of paper, including openings disposed along the operative edges of the former and pipes through which blowing-air can be supplied to said openings which direct supplied air to form an air cushion between the former and a web being folded, the pipes 30 providing a supply to the openings on both edges of the former, at an apex region thereof, which is separate from the supply to the remaining openings.

In order that the invention may be more 35 clearly understood and readily carried into effect, one embodiment thereof will now be described with reference to the accompanying drawings, in which:—

Figure 1 shows a front view of a folding 40 former of the invention, and

Figure 2 shows a side view of the former of Figure 1.

A former plate 1 is provided with inner bores 2, 3 along the former edges, and a 45 number of small blowing holes 4, 5 opening through the edges of the former and directed towards an overlying web of paper. Supply [Price 4s. 6d.]

of blowing air to the bores 2 and 3 is effected via pipes connected to the bores 2, 3 at the ends of the bores nearer the apex of the former, as indicated at 6 and 7. Valves 8 and 9 are provided in the aforementioned pipes by which means the supply of blowing air to the two groups of holes, can be individually regulated. For the region of the apex of the former itself, another supply pipe 10 incorporating a valve 11 is provided, this pipe opening into two short bores 12 and 13, connecting with a number of small blowing holes 14, 15 directed against an overlying paper web. It will be seen that the connections are such that the air flows along the bores 2, 3, 12 or 13 in a direction contrary to the running web.

By virtue of the provision of each air pipe with its own valve, the total air supply can easily be regulated so as to form a continuous air cushion along the entire former, over which cushion, the web or, in the case of a number of superposed webs, the innermost web, glides. Furthermore the supply can be regulated so as to produce, at the particularly critical point, i.e. the open region of the former, a correspondingly thick air cushion.

The invention can be used for existing folding formers if a supply is provided in the manner described and the bores running lengthwise in the former edges are suitably distributed, so that the apex of the former has its own blowing-air supply and regulation means.

#### WHAT WE CLAIM IS:—

1. A folding former, for longitudinally folding webs of paper, including openings disposed along the operative edges of the former and pipes through which blowing-air can be supplied to said openings which direct supplied air to form an air cushion between the former and a web being folded, the pipes providing a supply to the openings on both edges of the former, at an apex region thereof, which is separate from the supply to the remaining openings.

2. A folding former as claimed in Claim

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- 1, having separate supply pipes for the remaining openings on both former edges respectively.
3. A folding former as claimed in Claim 2,
- 5 wherein the respective supply pipes are connected to the associated openings by bores in the former and the arrangement is such that air flow along each bore is against the direction of web travel over the former.
- 10 4. A folding former as claimed in Claim 2 or 3, including valve means in the respective

supply pipes regulating the particular air flow.

5. A folding former substantially as hereinbefore described with reference to the 15 accompanying drawing.

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COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of  
the Original on a reduced scale*

Fig.1

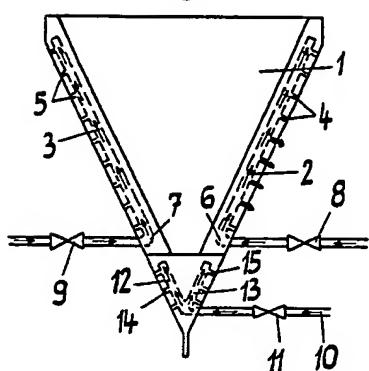


Fig.2

